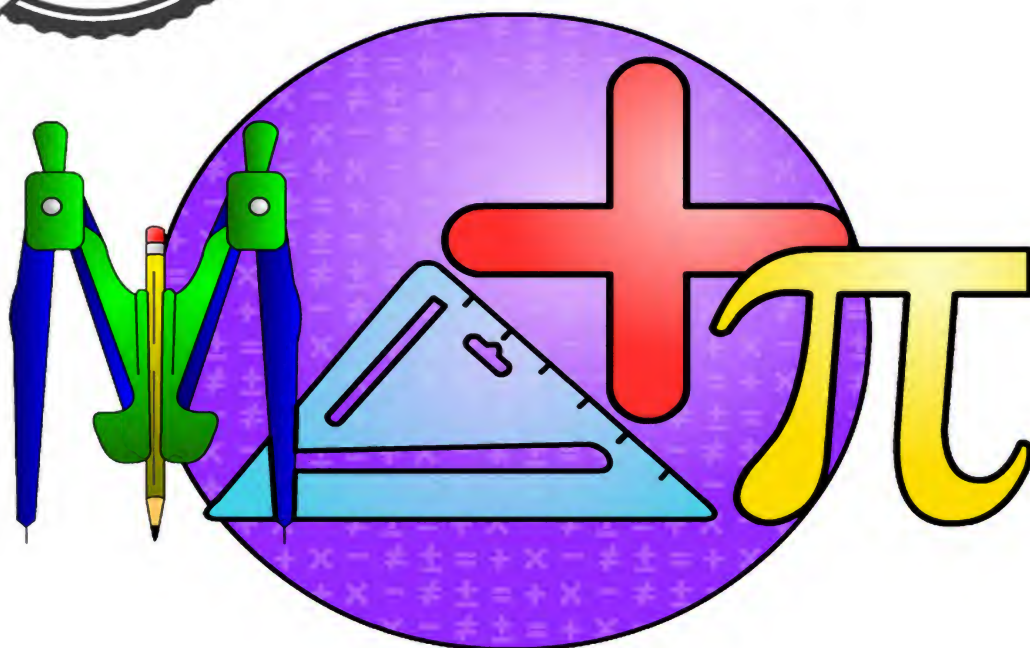




*The Legend*



# First term

**Student Name** .....

**Class** .....

**Just for Study groups**

To	
Lesson	1
Unit	1

## 1 Complete each of the following :

- [a]  $0.7351 \approx \dots\dots\dots$  ( to the nearest hundredth )
- [b]  $152.3017 \approx \dots\dots\dots$  ( to the nearest thousandth )
- [c]  $\frac{2758}{1000} \approx \dots\dots\dots$  ( to the nearest hundredth )
- [d]  $3\frac{18}{500} \approx \dots\dots\dots$  ( to the nearest hundredth )
- [e]  $0.9998 \approx \dots\dots\dots$  ( to the nearest thousandth )

## 2 Choose the correct answer :

- [a]  $5.994 \approx 5.99$  to the nearest .....  
( unit or tenth or hundredth or thousandth )
- [b]  $12.3794 \approx 12.38$  to the nearest .....  
( unit or tenth or hundredth or thousandth )
- [c]  $4\frac{1}{8} \approx \dots\dots\dots$  to the nearest hundredth.  
( 4.125 or 4.12 or 4.13 or 4.1 )
- [d]  $3\ 725\text{ m.} \approx \dots\dots\dots$  to the nearest kilometre.  
( 3 or 4 or 37 or 3 730 )
- [e]  $47\ 997\text{ mL.} \approx \dots\dots\dots$  to the nearest litre.  
( 47.9 or 47 or 48.99 or 48 )

## 3 Complete each of the following :

- [a]  $14.372 + 15.449 = \dots\dots\dots \approx \dots\dots\dots$  (to the nearest hundredth)
- [b]  $17.48 - 9.3746 = \dots\dots\dots \approx \dots\dots\dots$  (to the nearest thousandth)
- [c]  $2\frac{3}{8} - \frac{4}{200} = \dots\dots\dots \approx \dots\dots\dots$  (to the nearest hundredth)
- [d] The difference between  $\frac{31}{500}$  and  $0.421 = \dots\dots\dots \approx \dots\dots\dots$   
(to the nearest hundredth)
- [e]  $13\ 259\text{ gm.} \approx \dots\dots\dots\text{ kg.}$  (to the nearest kilogram)

## 4 Write the greatest decimal fraction which consists of 3 , 5 , 4 and 2 , then approximate it to the nearest hundredth and to the nearest thousandth.

## 5 Two pieces of cloth are of length 85.91 m. and 82.3972 m. Find the sum of the lengths of the two pieces approximating the result to the nearest thousandth.



To	
Lesson	2
Unit	1

1 Put the suitable relation ( $>$ ), ( $<$ ) or ( $=$ ) :

[a]  $\frac{7}{11}$    $\frac{5}{11}$

[b]  $1\frac{9}{10}$    $2\frac{1}{10}$

[c] 1   $\frac{3}{5}$

[d]  $\frac{3}{4}$    $\frac{5}{6}$

[e] 3.2   $3\frac{1}{2}$

[f]  $\frac{61}{8}$    $7\frac{1}{2}$

2 [a] Arrange each of the following in an ascending order :

(1)  $\frac{1}{2}$ ,  $\frac{2}{5}$ ,  $\frac{7}{10}$  and  $\frac{1}{4}$

(2) 2.4,  $2\frac{1}{2}$ ,  $3\frac{4}{5}$  and  $1\frac{1}{2}$

[b] Arrange each of the following in a descending order :

(1)  $\frac{1}{2}$ ,  $\frac{7}{8}$ , 1 and  $\frac{2}{5}$

(2)  $\frac{1}{4}$ , 0.8, 0.4,  $\frac{1}{2}$  and  $\frac{3}{4}$

3 Complete each of the following :

[a]  $37.258 \approx \dots\dots\dots$

(to the nearest hundredth)

[b] If  $\frac{3}{8} = \frac{a}{24}$ , then  $a = \dots\dots\dots$

[c]  $42.7935 \approx 42.794$  to the nearest  $\dots\dots\dots$

[d] If  $\frac{16}{36} = \frac{4}{b}$ , then  $b = \dots\dots\dots$

[e]  $\frac{3}{500} \approx \dots\dots\dots$

(to the nearest hundredth)

4 Find the values of  $X$  that satisfies the relation  $\frac{3}{8} < \frac{X}{8} < \frac{9}{8}$  such that  $X$  is a whole number.

5 Write the smallest decimal fraction which consists of 3, 9, 2 and 4, then approximate it to the nearest thousandth.

To	
Lesson	3
Unit	1

## 1 Complete each of the following :

[a]  $32.563 \times 100 = \dots\dots\dots$

[b]  $25.0825 \approx \dots\dots\dots$  (to the nearest thousandth)

[c]  $7.003 \text{ kg.} = \dots\dots\dots \text{ gm.}$

[d] If  $\frac{3}{7} = \frac{x}{21}$ , then  $x = \dots\dots\dots$

[e]  $4\frac{5}{8} \approx \dots\dots\dots$  (to the nearest hundredth)

## 2 Choose the correct answer :

[a]  $4.162 \times 100 \dots\dots\dots 41.62$  ( $>$  or  $<$  or  $=$ )

[b]  $32.531 \times 10 \dots\dots\dots 0.32531 \times 1\,000$  ( $>$  or  $<$  or  $=$ )

[c]  $572.4 \text{ cm.} \approx \dots\dots\dots \text{ m. "to the nearest metre"}$   
(6 or 50 or 60 or 572)

[d]  $37.756 \approx 37.76$  to the nearest  $\dots\dots\dots$   
(tenth or hundredth or thousandth or unit)

[e]  $7.04 \times \dots\dots\dots = 704$  (10 or 100 or 1 000 or 10 000)

## 3 Put ( $\checkmark$ ) for the correct statement and ( $\times$ ) for the incorrect one :

[a]  $5.47 \times 1\,000 = 547$  ( )

[b] If  $\frac{3}{5} = \frac{a}{10}$ , then  $a = 6$  ( )

[c]  $2.53 \times 100 = 25.3 \times 10$  ( )

[d]  $3.7 < 3\frac{5}{8}$  ( )

[e]  $2.5781 \approx 2.58$  (to the nearest  $\frac{1}{1000}$ ) ( )

## 4 If the price of a piece of sweet is 2.25 pounds.

What is the price of 10 pieces of the same kind ?

## 5 [a] Find the result of each of the following :

(1)  $(37.21 + 3.4) \times 10 = \dots\dots\dots$

(2)  $(7.742 \times 100) - 32.4 = \dots\dots\dots$

[b] Arrange the following numbers ascendingly :  $4\frac{1}{4}$ , 4.025, 4.375 and  $4\frac{1}{8}$



To	
Lesson	4
Unit	1

## 1 Find the product of each of the following :

[a]  $53 \times 0.7 = \dots\dots\dots$

[b]  $24 \times 0.06 = \dots\dots\dots$

[c]  $14 \times 0.003 = \dots\dots\dots$

[d]  $5.4 \times 3.2 = \dots\dots\dots$

[e]  $2.1 \times 0.34 = \dots\dots\dots$

## 2 Choose the correct answer :

[a]  $2.3 \times 0.004 = \dots\dots\dots$  ( 92 or 0.92 or 0.0092 or 0.092 )

[b]  $136.592 \approx 136.6$  to the nearest  $\dots\dots\dots$   
( ten or tenth or hundredth or unit )

[c]  $\frac{3}{8} \dots\dots\dots 0.35$  ( > or < or = )

[d]  $47.325 \times 10 \dots\dots\dots 4.7325 \times 100$  ( < or = or > )

[e]  $426.305 \approx \dots\dots\dots$  (to the nearest hundredth)  
( 400 or 426.30 or 426.31 or 426.305 )

## 3 Complete each of the following :

[a]  $35.61 \times 0.1 = \dots\dots\dots$

[b]  $12.5 + 7.632 = \dots\dots\dots \approx \dots\dots\dots$  (to the nearest  $\frac{1}{100}$  )

[c]  $5.37 \times 5 = \dots\dots\dots \approx \dots\dots\dots$  (to the nearest tenth)

[d]  $7.3 \text{ m.} = \dots\dots\dots \text{ dm.}$

[e]  $45.278 - 28.3451 = \dots\dots\dots \approx \dots\dots\dots$  (to the nearest 3 decimal places)

## 4 Find the area of the rectangle , its dimensions are 2.4 cm. and 4.5 cm. approximating the result to the nearest unit.

## 5 If the price of one metre of cloth is 7.75 pounds , find the price of 2.25 metres of this cloth approximated to the nearest pound.

To	
Lesson	5
Unit	1

**1 Find the result of each of the following :**

[a]  $\frac{1}{2} \times \frac{4}{5} = \dots\dots\dots$

[b]  $16 \times \frac{5}{8} = \dots\dots\dots$

[c]  $3\frac{2}{5} \times 4\frac{1}{2} = \dots\dots\dots$

[d]  $3.5 \times 0.5 = \dots\dots\dots$

[e]  $37.59 \times 100 = \dots\dots\dots$



**2 Choose the correct answer :**

[a] 38.623 litres =  $\dots\dots\dots$  mL.

( 386.23 or 3 862.3 or 38 623 or 1 000 )

[b]  $\frac{3}{4} \times 1\frac{1}{2} = \dots\dots\dots$

(  $\frac{9}{8}$  or  $\frac{1}{2}$  or  $\frac{6}{10}$  or  $\frac{5}{4}$  )

[c]  $1\frac{3}{7} \dots\dots\dots 1\frac{4}{7}$

( > or < or = )

[d]  $93.4987 \approx \dots\dots\dots$  to the nearest thousandth.

( 93.40 or 93.50 or 93.499 or 93.5 )

[e] If  $\frac{6}{13} < \frac{x}{13} < \frac{8}{13}$ , then  $x = \dots\dots\dots$

( 6 or 7 or 8 or 13 )



**3 Complete each of the following :**

[a]  $1\frac{1}{5} \times 2\frac{1}{3} = \dots\dots\dots$

[b]  $3.52 \times 7.4 = \dots\dots\dots$

[c] 3.5 km. =  $\dots\dots\dots$  m.

[d]  $2\frac{3}{8} \approx \dots\dots\dots$  (to the nearest 2 decimal places)

[e]  $3\frac{1}{4} \times \frac{4}{13} = \dots\dots\dots$



**4 [a] Arrange the following numbers in a descending order :**

$\frac{1}{2}$ ,  $\frac{7}{8}$ , 1 and  $\frac{2}{5}$

[b] Put ( > ), ( < ) or ( = ) :

(1)  $2\frac{1}{4} \square \frac{7}{3}$

(2)  $5.73 \times 100 \square 57\,300$



**5 The price of a bar of chocolate is L.E.  $2\frac{3}{4}$**

What is the cost of 15 bars of the same kind ?





To	
Lesson	6
Unit	7

**1** Find the quotient of each of the following :

[a]  $\frac{3}{4} \div \frac{3}{8} = \dots\dots\dots$

[b]  $\frac{2}{5} \div \frac{7}{10} = \dots\dots\dots$

[c]  $8 \div \frac{4}{9} = \dots\dots\dots$

[d]  $1\frac{3}{4} \div \frac{1}{2} = \dots\dots\dots$

[e]  $6\frac{1}{4} \div 12\frac{1}{2} = \dots\dots\dots$

5

**2** Put ( $>$ ) , ( $<$ ) or ( $=$ ) :

[a]  $\frac{3}{4}$  of an hour  40 minutes.

[b]  $\frac{4}{5}$    $\frac{2}{3}$

[c]  $7 \times \frac{1}{3}$    $2\frac{1}{3}$

[d]  $2\frac{1}{2} \div 4$    $\frac{7}{8}$

[e] 3.2 kg.  3 200 gm.

5

**3** Complete the following :

[a]  $7.35 + 16.028 \approx \dots\dots\dots$  (to the nearest  $\frac{1}{100}$  )

[b] 2.56 m. =  $\dots\dots\dots$  cm.

[c]  $2.3 \times 1.1 = \dots\dots\dots$

[d]  $\frac{2}{15} \times \frac{5}{6} = \dots\dots\dots$

[e]  $\frac{2}{5} \div 3 = \dots\dots\dots$

5

**4** The perimeter of a square is  $\frac{8}{11}$  m.

Find the length of each side of the square.

3

**5** Ahmed bought a piece of cloth 4.2 metres long , if the price of one metre is 48.7 pounds. Calculate the price of the cloth approximating the result to the nearest pound.

2

To	
Lesson	7
Unit	1

## 1 Complete the following :

[a]  $8.4 \div 10 = \dots\dots\dots$

[b]  $3.6 \div 100 = \dots\dots\dots$

[c]  $2456.8 \div 1\,000 = \dots\dots\dots$

[d]  $372.5\text{ gm.} = \dots\dots\dots\text{ kg.}$

[e]  $5\,629\text{ m.} \approx \dots\dots\dots\text{ km. (to the nearest km.)}$



## 2 Choose the correct answer :

[a]  $4.617 \times \dots\dots\dots = 4\,617$  ( 10 or 100 or 1 000 or 0.1 )

[b]  $\frac{5}{9} \dots\dots\dots \frac{7}{11}$  ( > or < or = )

[c]  $9.612 \times 100 \dots\dots\dots 9\,612 \div 100$  ( > or < or = )

[d]  $\frac{2}{3} \times \frac{9}{8} = \dots\dots\dots$  (  $\frac{3}{4}$  or  $\frac{4}{3}$  or 3 or  $\frac{1}{4}$  )

[e]  $1\frac{1}{2} \div \frac{1}{4} = \dots\dots\dots$  ( 2 or 6 or  $\frac{3}{8}$  or 12 )



## 3 Arrange the following numbers ascendingly :

$\frac{11}{12}$  ,  $\frac{5}{12}$  ,  $\frac{3}{4}$  ,  $\frac{2}{3}$  and  $\frac{5}{6}$



4 A road is of length 64 983 m. Find its length in kilometres approximating the result to the nearest hundredth.



5 If L.E. 565.5 is distributed among 10 poor persons.

How much money did each one take ?





To	
Lesson	8
Unit	1

## 1 Find the result :

[a]  $3\ 968 \div 124 = \dots\dots\dots$

[b]  $5\ 160 \div 215 = \dots\dots\dots$

[c]  $19\ 968 \div 256 = \dots\dots\dots$

## 2 Choose the correct answer :

[a]  $6\ 020 \div 215 = \dots\dots\dots$  ( 34 or 32 or 28 or 26 )

[b]  $0.342 \times 1.2 \dots\dots\dots 3.42 \times 0.12$  ( < or = or > )

[c]  $1\frac{3}{7} \dots\dots\dots 1\frac{5}{11}$  ( < or = or > )

[d]  $9\frac{1}{3} \times \frac{6}{7} = \dots\dots\dots$  ( 8 or  $\frac{1}{8}$  or  $\frac{8}{21}$  or  $2\frac{2}{3}$  )

[e]  $8\ 120 \div 145 = \dots\dots\dots$  ( 58 or 56 or 54 or 52 )

## 3 Complete the following :

[a] The number  $14.669 \approx \dots\dots\dots$  (to the nearest hundredth)

[b]  $3.2\text{ kg.} = \dots\dots\dots\text{ gm.}$

[c]  $1\ 845 \div 123 = \dots\dots\dots$

[d]  $0.97 \times 0.05 = \dots\dots\dots$

[e]  $75.351 \div 100 = \dots\dots\dots$

## 4 A truck can carry 162 boxes. Find the number of trips needed to transport 19 440 boxes.

## 5 [a] Ahmed bought 12 cans of juice , the price of each one is 1.85 pounds. How much money did Ahmed pay ?

## [b] Arrange the following in an ascending order :

$0.6$  ,  $\frac{5}{8}$  ,  $\frac{2}{5}$  and  $0.5$

To	
Lesson	9
Unit	1

## 1 Complete the following :

[a]  $16.4 \div 0.4 = \dots\dots\dots$

[b]  $73.92 \div 2.31 = \dots\dots\dots$

[c]  $17.5 \div 1.25 = \dots\dots\dots$

[d]  $74.632 \times 100 = \dots\dots\dots$

[e]  $56.431 + 2.115 = \dots\dots\dots \approx \dots\dots\dots$  (to the nearest hundredth)

## 2 Choose the correct answer :

[a]  $8.46 \text{ dm.} = \dots\dots\dots \text{ cm.}$  ( 846 or 0.846 or 84.6 or 8 460 )

[b]  $172 \times 0.003 \dots\dots\dots 0.172 \times 0.3$  ( < or = or > )

[c]  $2\frac{1}{3} \dots\dots\dots \frac{7}{3}$  ( < or = or > )

[d]  $18.2 \div 1.3 = \dots\dots\dots$  ( 13 or 14 or 15 or 16 )

[e]  $54.5 \div 0.5 = \dots\dots\dots$  ( 1.9 or 1.09 or 19 or 109 )

3 The length of a roll of cloth is 53.55 metres. It was divided into equal parts where the length of each part is 3.15 metres.

Find the number of these parts.

4 Find the number which if multiplied by 0.52

the result will be 1.248

5 Find the area of the rectangle whose length is 13.25 cm. and its width is 6.14 cm. , then approximate the result to the nearest hundredth.



## 1 Find the result :

- [a]  $17 \div 6$  (approximated to the nearest tenth) 4
- [b]  $23 \div 7$  (approximated to the nearest  $\frac{1}{100}$ )
- [c]  $12.7 \div 3$  (approximated to the nearest hundredth)
- [d]  $12.34 \div 0.9$  (approximated to the nearest  $\frac{1}{10}$ )

## 2 Choose the correct answer :

- [a]  $\frac{1}{25} \times 50 \times 0.25 = \dots\dots\dots$  ( 4 or  $\frac{1}{4}$  or  $\frac{1}{2}$  or 2 ) 5
- [b]  $6.28 \div 0.4 = \dots\dots\dots$  ( 15.7 or 157 or 1.57 or 0.157 )
- [c]  $2\frac{1}{4} \times 2\frac{2}{3} = \dots\dots\dots$  ( 6 or 3 or  $\frac{2}{3}$  or  $2\frac{1}{4}$  )
- [d]  $7.4 \dots\dots\dots 7\frac{5}{8}$  ( > or < or = )
- [e]  $7.8 \div 0.6 = \dots\dots\dots$  ( 10 or 11 or 13 or 14 )

## 3 Complete the following :

- [a] 39 days  $\approx$   $\dots\dots\dots$  weeks. (to the nearest week) 5
- [b]  $\frac{2}{11} \approx \dots\dots\dots$  (to the nearest tenth)
- [c]  $2\frac{1}{3} \div 1\frac{2}{7} = \dots\dots\dots$
- [d]  $25.2 \div 0.3 = \dots\dots\dots$
- [e]  $45.337 \times 10 = \dots\dots\dots$

## 4 Arrange the following ascendingly :

$3\frac{1}{2}$  ,  $4\frac{1}{4}$  ,  $3\frac{3}{4}$  ,  $3\frac{1}{8}$  and  $3\frac{2}{5}$

- 5 A family consumes 6.5 kg. of meat monthly where the cost of 1 kg. of meat is L.E. 38.5 Find what the family pays. (Approximate to the nearest pound) 3

To	
Lesson	1
Unit	2

**1** State which of the following is a set and which is not a set :

[a] The colours of the Egyptian flag.

[b] The letters in the word "Egypt".

[c] Beautiful cities in Egypt.

[d] Intelligent pupils in your class.

[e] Days of the week.



**2** Write the elements of the following sets :

[a] The set of digits of the number 74 581

[b] The set of letters of the word "student".

[c] The whole numbers between 5 and 10

[d] The even numbers less than 10

[e] The factors of 6



**3** Complete each of the following :

[a]  $12\frac{1}{2} \times \frac{4}{5} = \dots\dots\dots$

[b]  $45.334 \times 100 = \dots\dots\dots$

[c]  $25.25 \div 0.25 = \dots\dots\dots$

[d]  $72.358 \approx \dots\dots\dots$  (to the nearest hundredth)

[e]  $7.2 \times 5.2 = \dots\dots\dots$



**4** A building consists of 7 floors. If the height of each floor is 3.05 metres , find the height of the building.



**5** Arrange the following in a descending order :

$\frac{1}{4}$  ,  $\frac{4}{5}$  ,  $\frac{1}{2}$  , 0.4 and  $\frac{3}{4}$





To	
Lesson	2
Unit	2

## 1 Express each of the following sets by listing method :

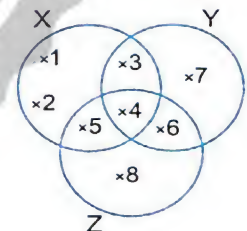
- [a] A = the set of days of the week
- [b] B = the set of digits of the number 32323
- [c] C = the set of letters of the word "door"
- [d] D = the set of prime numbers less than 10
- [e] E = the set of even numbers between 7 and 17

## 2 Express each of the following sets by description method :

- [a] A = { Port Said , Ismailia , Suez }
- [b] B = { 1 , 3 , 5 }
- [c] C = { 11 , 13 , 17 }
- [d] D = { 9 , 10 , 11 , 12 }
- [e] E = { o , a , g , l }

## 3 Using the Venn diagram below , list the element of each of the following :

- [a] X = .....
- [b] Y = .....
- [c] Z = .....
- [d] The set of the elements found in X and Y = .....
- [e] The set of the elements found in X , Y and Z = .....



## 4 Complete each of the following :

- [a] 43 days  $\approx$  ..... weeks (to the nearest week)
- [b] 2.576 m. = ..... cm.
- [c] If  $\frac{1}{3} = \frac{a}{15}$  , then a = .....
- [d]  $1.23 \times 0.6 = \dots \approx \dots$  (to the nearest hundredth)
- [e]  $2\frac{1}{3} \div \frac{5}{6} = \dots$

## 5 If the price a piece of sweet is 4.35 pounds , what is the price of 35 pieces of the sweet ?

- 1** If  $A = \{2, 5, 6, 7\}$  and  $B = \{0, 1, 5, 6\}$ ,  
put the suitable sign of ( $\in$  or  $\notin$ ) :

- [a] 6 ..... A , 6 ..... B  
[b] 2 ..... A , 2 ..... B  
[c] 1 ..... A , 1 ..... B  
[d] 5 ..... A , 5 ..... B  
[e] 65 ..... A , 65 ..... B



- 2** State if each set is finite , infinite or empty :

- [a] The set of whole numbers lying between 3 and 4 (.....)  
[b] The set of pupils in your school. (.....)  
[c] The set of even numbers. (.....)  
[d] The set of prime numbers between 1 and 3 (.....)  
[e] The set of dinosaurs in the zoo. (.....)



- 3** Choose the correct answer :

- [a] The smallest fraction in the following is .....  
(  $\frac{1}{3}$  or  $\frac{5}{8}$  or  $\frac{2}{9}$  or  $\frac{2}{5}$  )  
[b]  $\frac{1}{2}$  .....  $\frac{1}{3}$  ( > or = or < )  
[c] The quotient of dividing  $1.92 \div 0.6 =$  .....  
( 3.5 or 3.1 or 3.2 or 3 )  
[d]  $28.9316 \approx$  ..... (to the nearest thousandth)  
( 29 or 28.93 or 28.931 or 28.932 )



- 4** Complete each of the following :

- [a] If  $3 \in \{2, x, 5\}$  , then  $x =$  .....  
[b] If  $5 \in \{3, x + 4\}$  , then  $x =$  .....  
[c] If  $8 \in \{7, 5, x - 1\}$  , then  $x =$  .....  
[d]  $5\frac{5}{8} \approx$  ..... (to the nearest two decimal places)



- 5** Find the perimeter of the rectangle whose length is 4.1 cm.  
and its width is 3.5 cm. , then calculate its area.

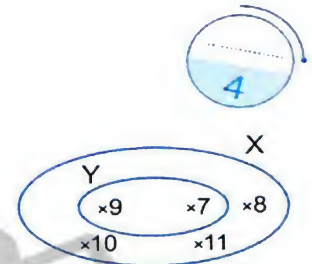




To	
Lesson	4
Unit	2

1 Using the opposite Venn diagram , complete using ( $\in$  ,  $\notin$  ,  $\subset$  or  $\not\subset$ ) :

- [a]  $Y \dots\dots\dots X$  [b]  $8 \dots\dots\dots X$   
 [c]  $\{10\} \dots\dots\dots X$  [d]  $11 \dots\dots\dots Y$   
 [e]  $\emptyset \dots\dots\dots X$  [f]  $\{9, 11\} \dots\dots\dots Y$   
 [g]  $Y \dots\dots\dots \{10, 11, 9, 7\}$  [h]  $X \dots\dots\dots Y$



2 Write down all the subsets for each of the following sets :

- [a]  $\{5, 7\}$   
 [b]  $\{3, 4, 8\}$

3 Complete each of the following :

- [a] If  $\{5, 3, 1\} = \{x, 5, 1\}$  , then  $x = \dots\dots\dots$   
 [b]  $3.25 \times 1.6 = \dots\dots\dots$   
 [c]  $9\frac{3}{4} \div 3\frac{1}{4} = \dots\dots\dots$   
 [d] If  $\{7, 10\} \subset \{2, 10, x\}$  , then  $x = \dots\dots\dots$   
 [e] 70 hours  $\simeq \dots\dots\dots$  days. (to the nearest day)

4 Choose the correct answer :

- [a]  $\{7\} \dots\dots\dots \{17, 77\}$  ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )  
 [b] 7  $\dots\dots\dots$  the set of days of the week. ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )  
 [c]  $\emptyset \dots\dots\dots \{3, 4, 6\}$  ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )  
 [d]  $135.42 \div 100 = \dots\dots\dots$

( 13 542 or 13.542 or 1.3542 or 1354.2 )

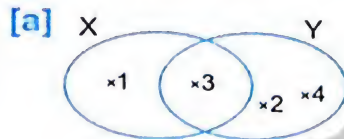
- [e]  $\{1, 2, 3, 4, \dots\}$  is  $\dots\dots\dots$  set.  
 ( a finite or an infinite or an empty )

5 A worker earns L.E.  $2\frac{1}{2}$  per hour.

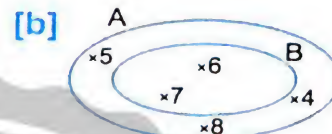
How many hours does he work to earn L.E.  $8\frac{3}{4}$  ?

To	
Lesson	5
Unit	2

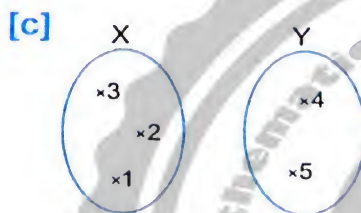
## 1 Complete the following :



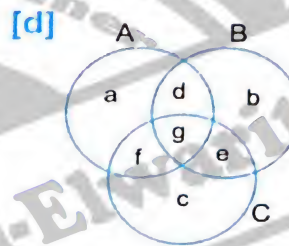
$$X \cap Y = \dots\dots\dots$$



$$A \cap B = \dots\dots\dots$$



$$X \cap Y = \dots\dots\dots$$



$$A \cap B \cap C = \dots\dots\dots$$

## 2 Complete the following :

[a]  $\{1, 2\} \cap \{2, 4\} = \dots\dots\dots$

[b]  $\{1, 3\} \cap \{5\} = \dots\dots\dots$

[c]  $\{1, 3\} \cap \emptyset = \dots\dots\dots$

[d] If  $5 \in \{3, x-2\}$ , then  $x = \dots\dots\dots$

[e]  $39\frac{2}{5} - 7.25 = \dots\dots\dots \approx \dots\dots\dots$  (to the nearest unit)

## 3 Choose the correct answer :

[a]  $6.352 \times 100 = \dots\dots\dots$  (63.52 or 635.2 or 6 352 or 63 520)

[b]  $0.03 \times 3.6 = \dots\dots\dots$  (0.108 or 1.08 or 10.8 or 0.0108)

[c]  $2 \dots\dots\dots \{11, 22, 33\}$  ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )

[d]  $1 \dots\dots\dots \{2, 1, 4\} \cap \{3, 4, 1\}$  ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )

[e]  $\{a, b\} \dots\dots\dots \{a, b, c\} \cap \{a, c, d\}$  ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )

## 4 Find the result of each of the following :

[a]  $4\frac{1}{4} \div 8\frac{1}{2}$

[b]  $6.217 \times 100$

[c]  $11\,664 \div 216$

[d]  $\frac{2}{11}$  approximated to the nearest tenth.

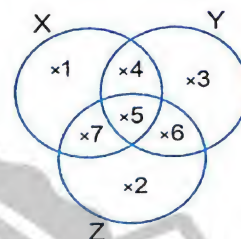
5 If L.E. 565.5 is distributed among some poor people and each of them took L.E. 6.5 Find the number of poor people.



To	
Lesson	6
Unit	2

1 Using the opposite Venn diagram , complete :

- [a]  $X = \dots\dots\dots$  [b]  $Y = \dots\dots\dots$   
 [c]  $Z = \dots\dots\dots$  [d]  $X \cup Y = \dots\dots\dots$   
 [e]  $X \cup Z = \dots\dots\dots$  [f]  $Z \cup Y = \dots\dots\dots$   
 [g]  $X \cup Y \cup Z = \dots\dots\dots$  [h]  $X \cap Y \cap Z = \dots\dots\dots$



4

2 Choose the correct answer :

- [a]  $\{1, 9\}$  ..... the set of odd numbers. ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )  
 [b]  $62.5 \div 2.5 = \dots\dots\dots$  (25 or 35 or 700 or 45)  
 [c]  $20.379 \approx \dots\dots\dots$  (to the nearest hundredth)  
 (20 or 20.37 or 20.4 or 20.38)  
 [d]  $\emptyset$  .....  $\{0\}$  (= or  $\subset$  or  $\not\subset$  or  $\in$ )  
 [e] If  $X \subset Y$ , then  $X \cap Y = \dots\dots\dots$  ( $X$  or  $Y$  or  $\emptyset$  or  $\{0\}$ )

5

3 Complete the following :

- [a] If  $4 \in \{6, x, 9\}$ , then  $x = \dots\dots\dots$   
 [b] If  $X = \{3, 4\}$ ,  $Y = \{3, 5\}$ , then  $X \cup Y = \dots\dots\dots$   
 [c] 3.56 km. = ..... m.  
 [d]  $0.45 \times 0.6 = \dots\dots\dots$   
 [e]  $753.81 \div 100 = \dots\dots\dots$

5

4 [a] Find the value of  $x$  if :  $\frac{1}{4} = \frac{3}{x}$

[b] Arrange ascendingly :  $0.8$ ,  $\frac{3}{8}$ ,  $\frac{3}{4}$  and  $0.6$

4

5 If the price of one kg. of apple is 9.75 pounds.

Find the price of 2.5 kg.

2

1 Using the opposite Venn diagram , complete :

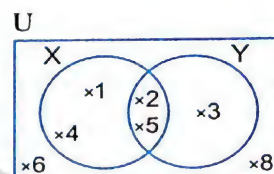
[a]  $U = \dots\dots\dots$

[b]  $X \cap Y = \dots\dots\dots$

[c]  $X \cup Y = \dots\dots\dots$

[d]  $\bar{X} = \dots\dots\dots$

[e]  $\bar{Y} = \dots\dots\dots$



5

2 If  $A = \{1, 2, 3\}$  ,  $B = \{2, 3, 5\}$  ,  $U = \{1, 2, 3, 4, 5, 6\}$  , represent A , B and U by a Venn diagram , then find :

[a]  $\bar{A}$

[b]  $\bar{B}$

[c]  $A \cap B$

[d]  $A \cup B$

3

3 Put the suitable sign of ( $\in$  ,  $\notin$  ,  $\subset$  or  $\not\subset$ ) :

[a]  $12 \dots\dots\dots \{10, 2\}$

[b]  $\{7\} \dots\dots\dots$  the set of even numbers.

[c]  $3 \dots\dots\dots \{33\}$

[d]  $\{2, 5, 9\} \dots\dots\dots$  the set of prime numbers.

4

4 Choose the correct answer :

[a]  $10.57 \div 9 \simeq \dots\dots\dots$  to the nearest hundredth.

( 1.20 or 1.18 or 1.17 or 1.16 )

[b]  $2\frac{1}{4} \times 1\frac{2}{3} = \dots\dots\dots$

(  $4\frac{1}{4}$  or  $3\frac{3}{4}$  or  $3\frac{7}{12}$  or  $2\frac{2}{12}$  )

[c] Which set is not a subset of  $\{g, h, f\}$  ?

(  $\{f\}$  or  $\{f, g, h\}$  or  $\{\}$  or  $\{gh\}$  )

[d]  $\{3, 2, 5\} \cap \{32, 5\} = \dots\dots\dots$

(  $\{3, 2, 5\}$  or  $\{32, 5\}$  or  $\{5\}$  or  $\{32\}$  )

4

5 Find the result :

[a]  $937.52 \times 10$

[b]  $355 \div 33$  (to the nearest thousandth)

[c]  $7\frac{4}{5} \div 3\frac{1}{4}$

[d]  $38.56 \div 100$

4



To	
Lesson	8
Unit	2

1 Using the opposite Venn diagram, list each of the following :

[a]  $A \cap B$

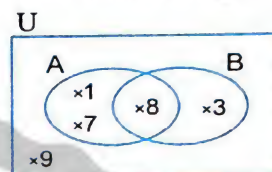
[b]  $A \cup B$

[c]  $A - B$

[d]  $B - A$

[e]  $\bar{A}$

[f]  $\bar{B}$



3

2 Using the opposite Venn diagram, find :

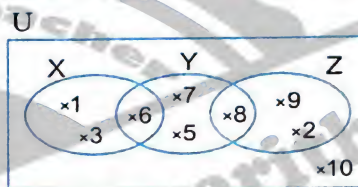
[a]  $X \cap Y$

[b]  $Y \cup Z$

[c]  $Z - Y$

[d]  $\bar{X}$

[e]  $X \cup Y \cup Z$



5

3 Complete the following :

[a]  $\{2, 3\} \cup \{3, 4\} = \dots\dots\dots$

[b] If  $\{3, 5\} \subset \{3, 10, x\}$ , then  $x = \dots\dots\dots$

[c]  $\{2, 4, 5\} - \{3, 4, 7\} = \dots\dots\dots$

[d] If  $X \subset Y$ , then  $X - Y = \dots\dots\dots$

[e]  $0.54 \times 1\,000 = \dots\dots\dots$

5

4 Choose the correct answer :

[a]  $\emptyset \dots\dots\dots \{3, 5\}$  ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )

[b] If  $\{4, 7, x\} = \{1, 4, 7\}$ , then  $x = \dots\dots\dots$   
( 1 or 4 or 5 or 7 )

[c] 45 days  $\simeq$   $\dots\dots\dots$  weeks (to the nearest week)  
( 5 or 6 or 7 or 8 )

[d] The greatest number in the following is  $\dots\dots\dots$   
( 0.111 or 0.12 or 0.123 or 1.023 )

[e] The number of subsets of the set  $\{4, 5\} = \dots\dots\dots$   
( 2 or 3 or 4 or 5 )

5

5 A big barrel has  $131\frac{1}{4}$  litres of oil and we want to distribute the oil in bottles. The capacity of each is  $5\frac{1}{4}$  litres. How many bottles are needed for that ?

2

1 In the opposite figure , complete :

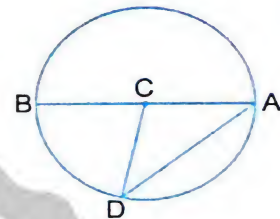
[a]  $\overline{AB}$  is a ..... in the circle.

[b]  $\overline{AD}$  is a ..... in the circle.

[c] The point ..... is the centre of the circle.

[d] The line segments ..... , ..... and ..... are radii in the circle.

[e] The triangle ACD is ..... triangle according to its side lengths.



2 [a] Draw a circle of centre M and radius length 3 cm.

[b] Draw a circle N with diameter length 5 cm.

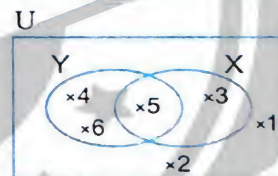
3 Use the opposite Venn diagram to list :

[a]  $X \cap Y$

[b]  $X \cup Y$

[c]  $X - Y$

[d]  $\bar{Y}$



4 Find the result :

[a]  $2\frac{4}{5} \div 1\frac{3}{4}$

[b]  $89\,614 \div 518$

[c]  $69.5 \times 0.47$

5 Draw the circle of centre M with radius length 5 cm. , draw the diameter  $\overline{AB}$  , then draw the chord  $\overline{BC}$  with length 6 cm. , then draw  $\overline{AC}$  and find its length.



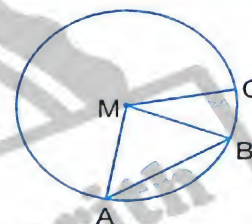
To	
Lesson	2
Unit	3

## 1 Draw :

- [a] The triangle ABC , in which  $AB = 7$  cm. ,  $BC = 5$  cm. ,  $AC = 6$  cm.  
 [b] The equilateral triangle XYZ whose side length is 5 cm.  
 [c] The triangle LMN in which  $LM = MN = 5$  cm. and  $LN = 6$  cm.

## 2 Choose the correct answer :

- [a] ..... is a chord in the circle M



(  $\overline{MA}$  or  $\overline{AB}$  or  $\overline{MC}$  or  $\overline{MB}$  )

- [b]  $275.415 \div 100 = \dots\dots\dots$

( 2754.15 or 27541.5 or 27.5415 or 2.75415 )

- [c] If  $U = \{3, 4, 5, 10\}$  and  $A = \{3, 4, 5\}$  , then  $\bar{A} = \dots\dots\dots$

( 10 or  $\{1, 0\}$  or  $\{10\}$  or  $\{3, 10\}$  )

- [d] A circle is of radius 3 cm. long , then its diameter

length = ..... cm. ( 24 or 18 or 6 or 4 )

- [e]  $\{2, 5, 8\} - \{3, 5, 7\} = \dots\dots\dots$

(  $\{2\}$  or  $\{2, 8\}$  or  $\{3, 7\}$  or  $\{5\}$  )

- [f]  $25.518 \div 6 \approx \dots\dots\dots$  (to the nearest hundredth)

( 4.253 or 4.3 or 4.25 or 4.26 )

## 3 Draw the triangle XYZ , such that $XY = 3$ cm. , $YZ = 4$ cm.

and  $XZ = 5$  cm

What is the type of triangle XYZ according to the measures of its angles ?

## 4 Find the result :

- [a]  $12.7 + 8.732 = \dots\dots\dots \approx \dots\dots\dots$  (to the nearest  $\frac{1}{100}$ )

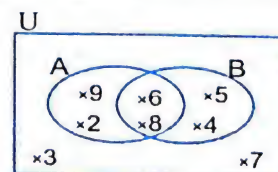
- [b]  $3.7 \times 0.35 = \dots\dots\dots$  [c]  $4\frac{1}{8} \div 2\frac{1}{16} = \dots\dots\dots$

## 5 The opposite figure is a Venn diagram.

List each of these sets :

- [a] U [b]  $B \cap A$  [c]  $A - B$

- [d]  $B \cup A$  [e]  $\bar{B}$



To	
Lesson	3
Unit	3

- 1 Draw the triangle ABC in which  $AB = BC = 5$  cm. and  $AC = 8$  cm. , then draw the altitude from B to  $\overline{AC}$  and measure its length.

3

- 2 Draw the equilateral triangle ABC whose side length = 4 cm. , then draw  $\overline{AD} \perp \overline{BC}$  , find :

3

[a]  $m(\angle CAD)$

[b] The length of  $\overline{BD}$

[c] The perimeter of the triangle ABC

- 3 Choose the correct answer :

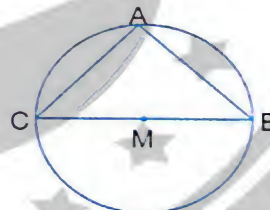
[a] If  $5 \in \{2, 3, x\}$  , then  $x = \dots\dots\dots$  ( 20 or 3 or 4 or 5 )

[b]  $612.8 \div 100 \dots\dots\dots 6.128 \times 10$  ( = or < or > )

[c]  $\emptyset \dots\dots\dots \{2, 7\}$  (  $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$  )

[d] In the opposite figure :

The greatest chord in the circle M is  $\dots\dots\dots$



(  $\overline{AB}$  or  $\overline{AC}$  or  $\overline{MB}$  or  $\overline{CB}$  )

[e]  $\{4, 5, 3\} - \{1, 3, 4\} = \dots\dots\dots$   
(  $\{5\}$  or  $\{1, 3, 4\}$  or  $\emptyset$  or  $\{4\}$  )

- 4 Complete each of the following :

[a]  $3.25 \times 10 = \dots\dots\dots$

[b] If  $X \subset Y$  , then  $X \cup Y = \dots\dots\dots$

[c] 4.48 dm.  $\simeq \dots\dots\dots$  to the nearest cm.

[d]  $\{2, 5, 7\} \cap \{5, 6\} = \dots\dots\dots$

[e] The number of altitudes of the triangle =  $\dots\dots\dots$

- 5 Find the result :

[a]  $1\frac{1}{5} \times 1\frac{1}{3}$

[b]  $2\frac{1}{5} \div 3.3$

[c]  $(24.6 + 1.24) \times 3$

[d]  $22.5 \div 1.5$



To	
Lesson	1
Unit	4

- 1 The following table shows the result of a survey has been applied to know the views of 100 pupils about the favorite game to them :

The game	Football	Handball	Basketball
The number of views	50	40	10

- [a] If one pupil is chosen at random , answer the following questions :
- (1) What is the probability that one of them prefers football ?
  - (2) What is the probability that one of them prefers handball ?
  - (3) What is the probability that one of them prefers basketball ?
- [b] If there are 300 pupils , what is the expected value of the number of pupils who prefer football ?
- [c] If there are 1 000 pupils what is the expected value of the number of pupils who prefer basketball ?

- 2 Choose the correct answer :

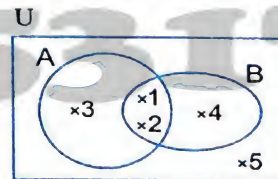
- [a]  $2.5 \times 100 = \dots\dots\dots$  ( 250 or 25 or 0.25 or 0.025 )
- [b]  $\{b\} \dots\dots\dots \{b, c\}$  (  $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$  )
- [c] Number of altitudes of any triangle is  $\dots\dots\dots$  ( 1 or 2 or 3 or 4 )
- [d]  $3.752 \approx 3.75$  to the nearest  $\dots\dots\dots$  (  $\frac{1}{10}$  or  $\frac{1}{100}$  or  $\frac{1}{1000}$  or  $\frac{1}{10000}$  )

- 3 Complete :

- [a] If  $U = \{1, 2, 4, 6, 8\}$  and  $A = \{1, 6\}$  , then  $\hat{A} = \dots\dots\dots$
- [b] The longest chord in the circle is called  $\dots\dots\dots$
- [c] The set of the digits of the number 30 772 is  $\dots\dots\dots$
- [d] The triangle whose measures of angles are  $30^\circ$  ,  $50^\circ$  and  $100^\circ$  is called  $\dots\dots\dots$  -angled triangle.

- 4 Use the opposite Venn diagram to find :

- [a]  $A \cup B$  [b]  $A \cap B$
- [c]  $A - B$  [d]  $\hat{B}$
- [e]  $(A \cap B)$



- 5 Draw the equilateral  $\Delta ABC$  in which its side length is 3 cm. , then find its perimeter.

To	
Lesson	2
Unit	4

- 1** A box contains 4 white balls , 3 blue balls and 5 red balls , all of them are of equal size. When one ball is drawn randomly from the box , find the probability of :

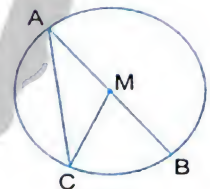


- [a] blue ball. [b] red ball.  
[c] not red ball. [d] red or blue ball.

- 2** Complete each of the following :



- [a] The probability of the certain event is .....  
[b] Any chord passing through the centre of the circle is called a .....  
[c]  $1.8 \times 0.09 = \dots\dots\dots$   
[d]  $\{3, 4, 5, 2\} - \{5, 2\} = \dots\dots\dots$   
[e] In the opposite figure :  
(1)  $\overline{AB}$  ..... in the circle.  
(2) The point ..... is the centre of the circle.  
(3)  $MA = \dots\dots\dots = \dots\dots\dots$



- 3** Choose the correct answer :



- [a]  $\{2\} \dots\dots\dots \{1, 22, 33\}$  ( $\in$  or  $\notin$  or  $\subset$  or  $\not\subset$ )  
[b]  $\frac{2}{5} < \dots\dots\dots$  ( $\frac{2}{5}$  or  $\frac{2}{3}$  or  $\frac{2}{7}$  or  $\frac{3}{8}$ )  
[c] As throwing a fair die once and observing the appearing number on the upper face , then the probability of appearing an even number is ..... ( $\frac{1}{3}$  or  $\frac{1}{2}$  or  $\frac{5}{6}$  or  $\frac{1}{6}$ )  
[d]  $2\frac{1}{4} \times 1\frac{2}{3} = \dots\dots\dots$  ( $3\frac{3}{4}$  or  $\frac{4}{15}$  or  $\frac{1}{3}$  or  $\frac{47}{12}$ )  
[e] The probability of the impossible event is ..... ( $\frac{1}{2}$  or  $\frac{3}{4}$  or 1 or 0)



- 4 [a] If  $U = \{1, 2, 3, 4, 5\}$ ,  $X = \{1, 2, 4\}$  and  $Y = \{1, 4, 5\}$

Represent them by Venn diagram, then find :

(1)  $X \cup Y$

(2)  $X \cap Y$

(3)  $\bar{X}$

(4)  $X - Y$

- [b] A card has been randomly drawn out of 10 cards numbered from 1 to 10

Find the probability of getting :

(1) an odd number.

(2) a prime number.

(3) a number less than 5

- 5 [a] If 9 483 cans are packed in 29 boxes, then how many cans are in each box ?

- [b] Draw the triangle ABC in which  $AB = 6$  cm. and  $BC = AC = 5$  cm. , then draw the altitude  $\overline{CD}$  on  $\overline{AB}$  and find its length.

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